D-1a(3)a CONTAINER STORAGE AREA

The floor of the containment area is poured concrete, from 4" to 6" thick. This pad is constructed of 2500psi concrete mix. Assuming a pallet of 4 drums filled with the heaviest waste (Perchlorethylene @ 700 lbs/drum), one pallet would weigh 2850 lbs (including the pallet). These are typically stacked three high thus putting three times the load or 8550 lbs. on the bottom pallet. The load bearing surface of a 48" X 48" pallet is 1440 square inches (5-6" wide boards X 48" long) minimum. This calculates to 5.94 psi maximum per stack and is well within the load limits of the concrete.

Cracks and joints are to be sealed with Dow Corning silacone sealent #290 or its equivilent. While no sealent of this type (flexable) is completely imprevious to stored wastes, #290 provides maximum protection. According to Dow Corning the effect of the chemicals stored at this facility on the sealent will have slight swelling, but the bond to the concrete sides of the joint will not be effected. Upon removal of the spilled or leaked material, the sealent will return to its original configuration.

Completion of repairs to the present floor is scheduled for September 15, 1984. Upon advisement from Dow

Corning, repairs of this nature should be done when the pad is as warm as possible for best results, thus the summer schedule.

D-1a (3)(b) CONTAINMENT SYSTEM DRAINAGE

In all storage areas, drums containing waste materials are to be stored on pallets so that they do not contact any standing liquids, should there be any present.

D-1a(3)(c) CONTAINMENT SYSTEM CAPACITY

As shown on the facility drawing on page 42 the containment system capacity is calculated as follows:

Primary storage area A thru E

Note: Where as the containment wall height is 8" the capacity of the areas are limited to 3" as the height of the conatinment wall in the receiving are is 3". This is a 3" angle iron, welded to a second iron which is imbeded in the concrete.

AREA	DIMENSIONS (in feet)	CUBIC FT.
A	59 x 14.75 x .25	217.56
B	55 x 31.25 x .25	428.69
C	11.25 x 28.75 x .25	80.86
D	19.33 x 33 x .25	159.23
E	24.3 x 19 x .25	115.67
	Total Cubic Feet.....	1003.01

The total cubic feet capacity is then reduced by the space occupied by the drum pallets, to a depth of 3" from the floor. Each pallet would take up the space of 5 boards of 3/4 " x 6" x 48" and 3 boards of 1 $\frac{1}{2}$" x 2$\frac{1}{4}$" x 48". This amounts to .91 cubic feet. The maximum number of pallets which could be on the floor at one time is 91.

Multiplying these, the maximum number of cubic feet which c could be taken up by the pallets is 82.81 cubic feet or 621 gallons. There is no other equipment which would take up significant capacity.

CAPACITY CALCULATIONS:

Total cubic feet (1003.01-82.81)= 920.2

Total gallon capacity (920.2 x 7.48)=6,883.1

Maximum storage capacity (816 drums x 55 gallons)= 44,880 gallons.

Required containment =4,488 gallons

Excess containment capacity= 2395.1 gallons.

With regards to the concrete structures at the two doors connecting storage area #2 to adjacent areas, their height will be 3". It is anticipated that this work will be completed within 60 days of the approval of this application.

D-1a (3) (d) CONTROL OF RUN ON

All waste storage areas are under roof so precipitation cannot reach the containment area. The concrete containment walls prevent run on.

In storage are #1, the "raised floor" is a rounded concrete curb approximately 8" high. This ramp allows vehicular traffic to enter and exit the storage area. The lateral centerline is the high point of the ramp and is located inside the building so that the sliding doors can be closed to prevent rain from blowing into the containment area. Since the curb and containment walls are joined, no rain which may flow under the door will reach the containment area.

D-1a(4) REMOVAL OF LIQUIDS FROM CONTAINMENT SYSTEM

When spilled or leaked wastes are discovered either as the result of an inspection or daily operation, the material will be removed immediately either by the use of absorbant pads or the vacuum unit. The source is to be identified and an Emergency Coordinator summoned.

Absorbant pads used to removed spilled or leaked material will be treated as a hazardous waste and disposed of in accordance with applicable regulations.

Material which might be removed by the vacuum unit would be drummed and treated as it would have been had it remained in its original container. This would be recyclingor disposal in accordance with applicable regulations.

D-1b Not applicable

D-2 TANKS

The proposed storage tank, to be located in the distillation room, is not to be a process tank. Rather, it will be used to store F001 & F002 wastes which would be received in bulk. Based on company history this tank will be used only intermittently and the majority of the time it will remain empty. With this in mind, following are current plans, specifications and practices as they relate to the proposed tank.

D-2a & b DESCRIPTION OF TANKS

The proposed tank, to be used solely for intermitent storage of F001 and F002 materials and as an emergency tank will be a 6,000 gallon, two compartment, horizontal tank. It is not a process tank. Material of construction will be mild carbon steel with a minimum thickness of 5/16" for both head and shell. It will be used under ambient temperature and atmospheric pressure. Corrosion data from Corrosion Data Survey for Metals by the National Association of Corrosion Engineers show a corrosion rate of 2 mills (.002 Inches) per year when in service with virgin chloronated solvents. This data is the most closely applicable for our application.

One of the emergency tanks is our own tank trailer, a 3 compartment stainless steel, 4,500 gallon Heil trailer. It is an MC304 spec trailor which meets DOT specification

for F001 and F002 wastes. It would be used on a temporary basis (less than 72 hrs.) to store material until other arrangements could be made which would be redrumming or transportation to an approved storage facility.

The same would be true of our vacuum unit tank. For smaller quantities (up to 500 gallons) the material would be held only until other arrangements can be made. The third emergency tank would be the proposed storage tank.

D-2c TANK MANAGEMENT PRACTICES

Piping and Instrumentation.

Prior to filling, the liquid level in the tank will be measured to insure that there is enough room remaining to accept the load being pumped in. Material is fed into and our of the tank through two inch lines which enter the top of the tank and are connected to a down pipe which reaches to within approximately 1" of the bottom. This line is valved at the top of the tank. Installed at the top of the tank in each compartment is a level alarm which will activate an audible signal bell when the level in the tank reaches 6" from the top. The specification for this alarm is found in Appendix F.

The pressure vacuum vents are used to seal the tank when it is not being either filled or drained. At other times,

this vent is closed but will relieve pressures or vacuums which may develop due to changes in ambient temperatures which result in slight expansion or contraction of the material. Information on this vent in found in appendix F.

Material will be pumped into the tank or removed from the tank only by a Chemclene employee, this person will be standing by to stop the feed pump and close the feed line valve in the event of an emergency.

CONTAINMENT STRUCTURE

The walls of the building (minimum of 10 feet high) serve as two sides of the containment. These are concrete block in construction and will be parged with a mortar mix ½" thick. The other two walls of the containment will be concrete block with the same lining, but only 4 feet high. The floor will be constructed of 4,000 psi concrete, 4 inches thick. The area of the floor under the tank saddles will be 24" wide, 12" thick, reinforced and capable of supporting 30,000 lbs (minimum) each. The area contained is of sufficient volume to hold the entire contents of the tank at its fullest.

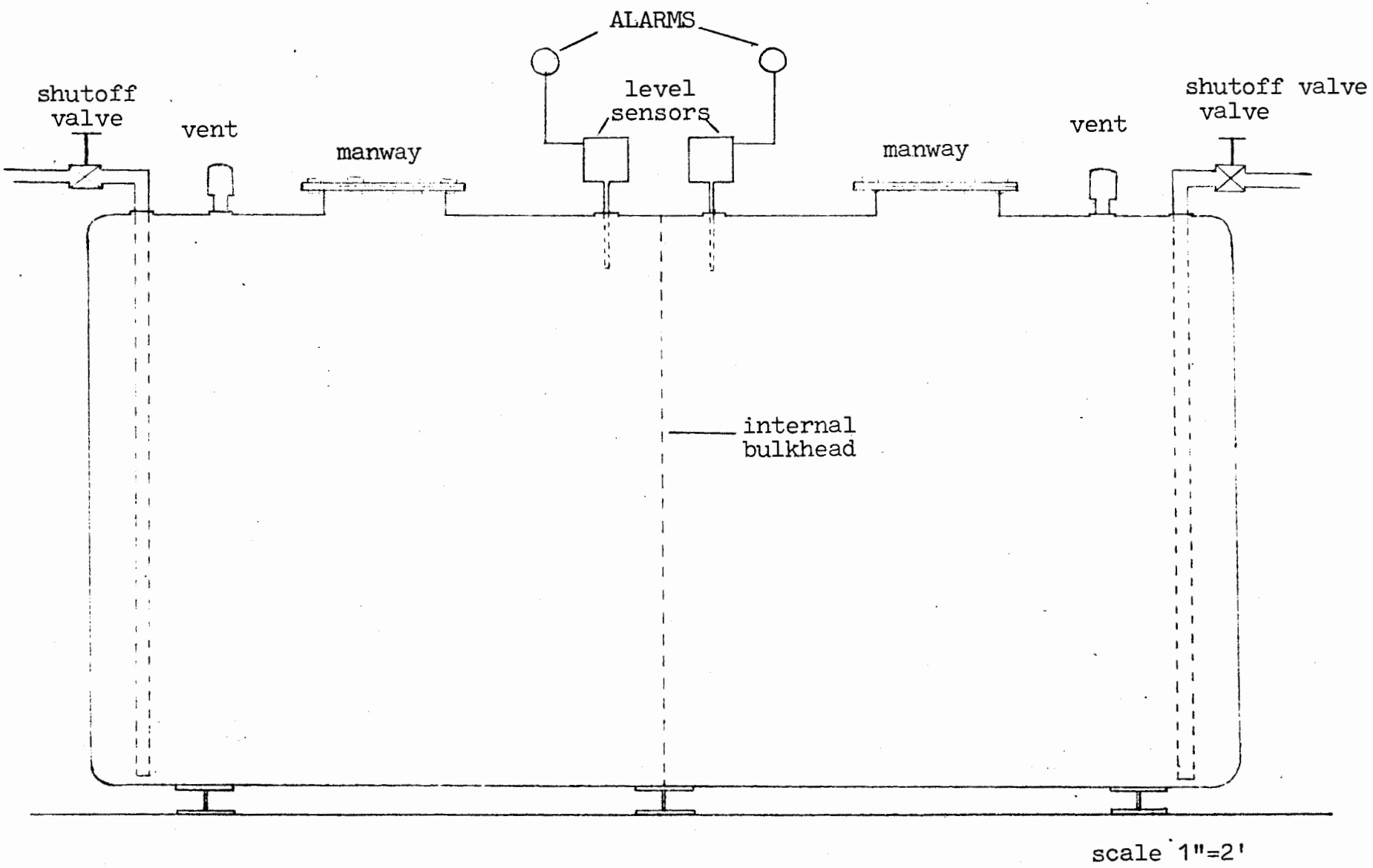


FIGURE 5. 6,000 GALLON HAZARDOUS WASTE STORAGE TANK

SECTION F

SECURITY

F-1a SECURITY

The entire facility except parking lot and office is surrounded by an eight foot high chain link fence with barbed wire on the top or an eight foot high wood fence. The three gates in this fence are locked when the facility is not active. The entrance area of the facility is automatically lighted every night.

The section of fence which had fallen has been repaired.

Entry to the facility is controlled by the employees on duty. Visitors must enter the active portion of the facility through the front vehicle gate or the personnel gate. In either case, employees will visually or audibly detect the visitor.

Warning signs as prescribed by regulation are posted at each entrance gate and in sufficient numbers to be seen from any approach to the facility. The location on these signs is shown on Figure 1, page 11, these signs can be read from a distance of 25 feet.

F-1b WAIVER

Chemclene is not applying for any waiver.

F-2a GENERAL INSPECTION REQUIREMENTS

Inspection schedule for safety and emergency equipment, security devices and operating and structural devices.

Inspection Item	Potential Problems	Inspection Frequency
Boundary Fence	Breaks in fence Inoperative gated & Locks	Weekly
Fire Extinguishers	Not fully charged. Unoperative trigger mech.	Yearly
Fire Extinguishers	Not fully charged	Monthly
Absorbant supply	Inadequate supply	Weekly
First Aid Kits	Missing Components	Weekly
Fork Lift	Not fully functional	Weekly
Tools	Missing Items	Weekly
Vacuum Tank Unit	Vacuum Pump inoperative. Signs of cracks, corrosion or deteriorization of tank, deteriorating hoses	When in use Weekly
Back-Hoe	Inoperative	Weekly
Communications	Inoperative	Weekly
Gloves, Safety Glasses	Inadequate supply	Weekly
Containment	Cracks or other deterioration of floor & walls. Standing liquid wastes.	Weekly
Waste Tank	Tank Levels. Exterior signs of leaking or corroding Fixtures, seams, piping .... Lack of containment integrity. Interior condition	Level-Daily When in use Weekly Weekly Yearly

the adjacent compartment. This testing proceedure is described in underwriters labs publication UL142. Should any leaks be found, the problem area will be repaired (welded) prior to placing the tank in service again.

Should the visual interior inspection detect areas of unusual wall thinning corrosion, ultra sound or radiologic inspection will be employed. This would be carried out by the manufacturer, they are fully trained and will test according to the methodology found in Appendix F.

F-2b(2)(g) TANK INTERIOR INSPECTION

At the point of annual inspection, the purposedtank if not already emptied will be emptied by prescheduling the reclaimation of its contents. This involves pumping the material from the tank to the still, running the still, until the tank is empty.

The manway cover will then be removed and the vacuum unit used to remove any remaining liquid or residue. Following the process, the tank will be flushed with clean solvent to remove any material not picked up by the vacuum unit. This flushing will continue until the flushing solvent exits the tank visually clear and free of particulates.

The tank will then be aired for a minimum of 24 hours, using a 400 CFM blower with the suction side connected

to a 4" duct extended to the bottom of the tank. The tank atmosphere will then be checked with a Mine Safety Appliances air sampling pump and a detector appropriate for the last material held by the tank. In addition, any personnel entering the tank will wear an organic vapor mask or air supply and will be attended by an additional person outside the tank. Should this test show levels (TLV) higher than those allowable, additional forced venting will occure until the levels are reduced. See Appendix F for air sampler specs.

Remedial Action Procedures.

When, as a result of regular, scheduled inspection or trained observance (during the course of operation)

it is determined that an environmental or health hazard has already occurred, the procedures outlined in this facility's preparedness, prevention and contingency (PPC) Plan will be carried out immediately. In addition, remedial action to correct the problem shall commence immediately. Where a hazard is imminent, corrective action shall also commence immediately. Any deterioration or malfunction detected as a result of the above listed inspections shall be corrected according to the following schedule:

1. Boundary Fence & Emergency tanks: 14 working days.
2. Absorbant, vacuum tank unit, back-hoe: 10 working days.
3. Level alarms, fire extinguishers, first aid kits, fork lift, tools, sump pumps, gloves and safety glasses: 7 working days.
4. Communications: 2 working days.
5. Waste Containers and waste tanks: Immediately.
6. Containment areas, including loading and unloading area: Immediately, if possible; otherwise within 21 working days (in the case of major reconstruction) or the effected area will be removed from service.

External Factors.

Electrical outages. All process equipment is equipped with controls which will automatically shut down the equipment should the power fail. Level alarms

on waste tank would become inoperative during a power failure; these tanks will not be filled during this type of event.

No other external factors could effect the operation resulting in a danger to public health and safety or the environment, short of an earthquake or thermonuclear event.

F-3 EQUIPMENT REQUIREMENTS

F-3a(1) INTERNAL COMMUNICATIONS

The internal phone system will be utilized to communicate with other facility personnel. Location shown in Fig. 1.

F-3a(2) EXTERNAL COMMUNICATIONS

The telephone will be used to signal emergency assistance from local police, fire department and/or medical personnel.

F-3a(3) EMERGENCY EQUIPMENT

See page 61 for complete list of equipment.

F-3a(4) WATER FOR FIRE CONTROL

At this facility, equipment which might become contaminated in the event of an emergency would be decontaminated by washing in solvent. Once contamination residue is removed, the equipment is cleaned and dried. The wash solvent will then be recycled at our facility.

EMERGENCY EQUIPMENT

LISTING	LOCATION	USE
Absorbent Material (Sawdust, Hazorb)	1,2,4	1
Chain Hoists (Manual)	1	2
Chain Saw (Gas Operated)	1	2
Chemical Neutralizers	1	3
Fans	1	2,3
Fire Extinguishers	1,2,3,4	3
First Aid Kits	1,2,3	1,2,3
Fork Lift	1	1,2
Jacks	1	2
Lighting Equipment	1	3
Emergency Tanks	1,2,4	1
Tank Truck	4	1
Tools	1	1,2,3
Vacuum Unit	2	1
Tractor and Loader	4	1,2
Self Contained Breathing Apparatus	1	1,3
Gloves, Safety Glasses, Face Shields	1	1

USE KEY: 1 - Spill clean-up; 2 - Equipment moving; 3 - Fire

LOCATION KEY: 1 - Main plant; 2 - Storage Area #1; 3 - Office; 4 - Truck shed

Water, for use in fire emergency, is not to be used at this facility. The potential for environmental damage from run-off of contaminated water is too great. Therefore, this facility does not have waterhoses, automatic sprinklers or water spray systems. Rather, this facility is equipped with dry chemical fire protection, located as shown in Figure 1 , page 11.

Further, by arrangement with the East Whiteland Fire Company, their foam equipment is to be used should they be called to a fire.

Because of the number, location, and capacity of onsite dry chemical extinguishers, it is felt that additional perminent foam equipment is not necessary.

F-3b AISLE SPACE REQUIREMENT

Aisle space maintained to allow unobstructed movement of personnel, fire, or spill control equipment is shown in Figure 4. Where vehicular movement within the facility is restricted, sufficient lengths of hose are kept on hand to reach any portion of the facility.

F-4 PREVENTIVE PROCEEDURES, STRUCTURES & EQUIPMENT

F-4a UNLOADING OPERATIONS

Drums are moved within the facility either by a hand operated drum dolly or by a specially designed "drum

Inspection Item	Potential Problems	Inspection Frequency
Loading & Unloading Area	Lack of containment integrity, standing liquids & open precipitation drain valve.	Daily, when in use

F-2b (1) CONTAINER INSPECTION

Conatiners and the container storage areas are checked formally on a weekly basis for deterioration of containers caused by corrosion, cracks or other deterioration of walls and floor, leaking drums and standing liquid. Chemclene is a small facility and as a matter of daily operating routine, the conatiner storage areas are checked by employees working in the area. Per the Chemclene training program, all employees are aware of the vital need to keep a watchfull eye for signs of potential problems.

The roof of the container storage area is checked during periods of rain to detect leaks. Should a leak be detected, an appropriate container will be placed under the leak to catch the water until a repair can be effected.

F-2b (2) TANK INSPECTION

The following Inspection proceedures will be followed only when the tank is in use.

F-2b (2)(a) TANK CONSTRUCTION MATERIALS

The waste tank will be checked visually on a weekly basis for signs of corrosion erosion and leaks at fitting seams welds and fixtures.

F-2b (2) (b) TANK SURROUNDING AREA

The containment area around the tank will be checked weekly for signs of leaking and standing liquid.

F-2b (2)(c) TANK OVERFILLING CONTROL EQUIPMENT

The level alarm will be checked daily for proper function. See appendix F for specifications.

F-2b (2)(d) TANK MONITERING DATA

This is not a process tank and does not have monitoring equipment.

F-2b (2)(e) TANK LEVEL OF WASTE

This is not an open top tank.

F-2b (2)(f) TANK CONDITION ASSESSMENT

Once cleaned and cleared for entry, the tank will be entered by a Chemclene employee. The interior condition will be checked for signs of unusual corrosion or deteriration. Particular attention will be paid to seams, welds and fittings. Wire brushing and a pick hammer will be used to gain a clear view of the steel.

Once this inspection is completed, the tank will be sealed and tested with 5 psi air pressure. Per industry standards, while under pressure, the seams, welds and fittings will be covered with leak detector liquid. This liquid is formulated to bubble when it flows over a leak. In addition to checking the exterior, the bulk head will be checked from inside

grabber" which lifts the drum by the chines without squeezing the drum.

F-4b RUNOFF

All waste storage and handling areas are fully contained per regulation. See facility drawing Figure 3.

F-4c WATER SUPPLIES

As described in D-1a(3)(a) and D-2, the containment area is completely surrounded by a concrete wall and is all under roof. It receives no precipitation which could cause overflow or runoff and is not subject to runon. As a result of our own investigations, in 1981, it was determined that groundwater contamination does exist and remedial measures have been taken to contain this problem. Ground water recovery wells have been installed and pumping is now underway creating a cone of influence which surrounds the entire facility. In addition to removing present contamination, this system would contain possible future discharges even though all precautions have been taken to prevent such an occurrence.

F-4d EQUIPMENT AND POWER FAILURE

In the event of a power failure, all process equipment will automatically shut-down. This facility does not

utilize equipment which could build pressure, vacuum or some other potentially dangerous condition in the event of a power failure. Emergency lighting can be supplied by our portable generator if necessary.

F-4e PERSONNEL PROTECTION EQUIPMENT

See page 61 for a complete list of equipment.

F-5a-d PRECAUTIONS TO PREVENT IGNITION OR REACTION OF IGNITABLE OR REACTIVE WASTES

This facility does not accept reactive wastes so the thrust of this section is on ignitable wastes.

Ninty-one percent of the wastes handled at our facility are of the F001 and F002 classification. Materials within these waste categories are not potentially incompatable with each other. Incompatability may exist, however, between these wastes and other waste types. It is therefore our posture to keep the 9% of other wastes, segregated and separated, according to regulation, from each other and the F001 and F002 wastes.

Ignitable wastes will be stored and handled in areas that are protected from sources of ignition such as open flame, smoking, cutting and welding, hot surface, frictional heat, sparks, spontaneous ignition and radiant heat. These sources shall be kept at a distance of at least ten (10) feet. The receiving and storage areas of this facility shall have "no smoking" signs posted at all times. Both of these areas are normally separated from all sources of ignition. Precautions will be taken to assure no operating trucks (engine on) are adjacent to the receiving area while any containers of ignitable waste are open or in the event of a leak or spill. This type of waste will be stored in tite head drums with the possible exception of solid ignitable wastes. Drum storage of ignitable wastes shall be in accordance with container management practices found in section D-1a(2). This is an indoor storage area that is well ventilated and remains cool even during conditions of high ambient temperatures (due to climatic conditions). A fire extinguisher is located within 20 feet of the storage and receiving areas as are communications to the fire company.

Should these wastes need to be redrummed, a rinsed or re reconditioned drum will be used. If there is any question about compatability, a newly reconditioned drum will be used.

F-5e - F-5f Not applicable. Chemclene does not store ignitable, reactive or incompatable wastes in tanks.

G CONTINGENCY PLAN

A copy of the Preparedness, Prevention and Contingency Plan (PPC) is attached as Appendix E. This document was submitted to the Pennsylvania Department of Environmental Resources in April, 1983. Supplementary information is provided in sections G-1 thru G-8 as appropriate.

G-1 GENERAL INFORMATION

Chemclene Corporation, founded in 1946, is a distributor of chlorinated solvents, (Trichlorethylene, 1,1,1-trichloroethane, Perchlorethylene, Methylene Chloride). These materials are purchased from a number of manufacturers and resold to the end users. Materials are picked up from the manufacturer's terminals and placed in bulk storage at our facility in Malvern, PA to be delivered either in small bulk or drums. These are the only chemicals we handle.

The second part of our operation, which has been in existance since approximately 1958, is the reclaimation of these solvents. Once used by our customers the solvent is returned to our facility and reclaimed. The reclaimed material is either sold back to the customer or to another account. The still bottoms are shipped to an approved disposal facility as a hazardous waste. Chemclene also receives waste ignitables in the F003, F005 and D001 catagories.

G-2 EMERGENCY COORDINATORS

Emergency coordinators have been authorized by the Board of Directors of Chemclene Corporation to commit resources necessary to implement and carryout the contingency plan.

G-3 IMPLEMENTATION OF CONTINGENCY PLAN

The decision to implement the contingency plan depends on whether or not an imminent or actual incident could threaten human health or the environment. This section is to be used as guidance for the emergency coordinator and other facility personnel. The contingency plan will be implemented under the following conditions:

1. Fire and/or Explosion

A fire causes the release of toxic fumes.

The fire spreads and could possibly ignite materials at other locations onsite or could cause heat-induced explosions.

The fire could possibly spread to offsite areas.

Use of water or water and chemical fire suppressant could result in contaiminated runoff.

An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.

An imminent danger exists that an explosion could ignite other hazardous waste at the facility.

An imminent danger exists that an explosion could result in release of toxic material.

An explosion has occurred.

2. Spills or Material Release

The spill could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard.

The spill could cause the release of toxic liquids or fumes.

The spill can be contained onsite, but the potential exists for ground water contamination.

The spill cannot be contained onsite, resulting in offsite soil contamination and/or ground or surface water pollution.

G-4 EMERGENCY RESPONSE PROCEDURES

G-4a NOTIFICATION

In the event of an emergency situation the emergency coordinator will be notified first; subsequently, all facility personnel, appropriate federal, state, or local agencies, and fire or police departments will also be notified should the emergency warrent. See Figure 5.

G-4b IDENTIFICATION OF HAZARDOUS WASTES

The emergency coordinator will immediately identify the character, exact source, and extent of the release. The initial identification method will be to utilize visual analysis of the material and location of the release. The containers are labeled as to their contents and are in some cases, in

distinct separate locations. The tank will be labeled to identify its contents. If for some reason the released material cannot be identified, visual samples will be taken for chemical analysis.

G-4c ASSESSMENT

The emergency coordinator will assess possible hazards, both direct and indirect, to human health or the environment.

G-4d CONTROL PROCEDURES

Potential accidents fall under two general classifications: (1) Fire and/or explosions, and (2) Spills or material release. Natural disasters such as earthquakes or hurricanes are assumed to fall into one of these classifications. An overview of the emergency plan of action is outlined in Figure 5.

Fire and/or Explosion

The storage tank or container, can be easily accessed by fire-fighting and other emergency vehicles or equipment.

If a fire should break out, concentration will be placed on extinguishing it or preventing the fire from spreading to nearby areas. The fire-fighting effort will be carried out by company personnel until outside assistance has arrived, if necessary.

The following actions will be taken in the areas

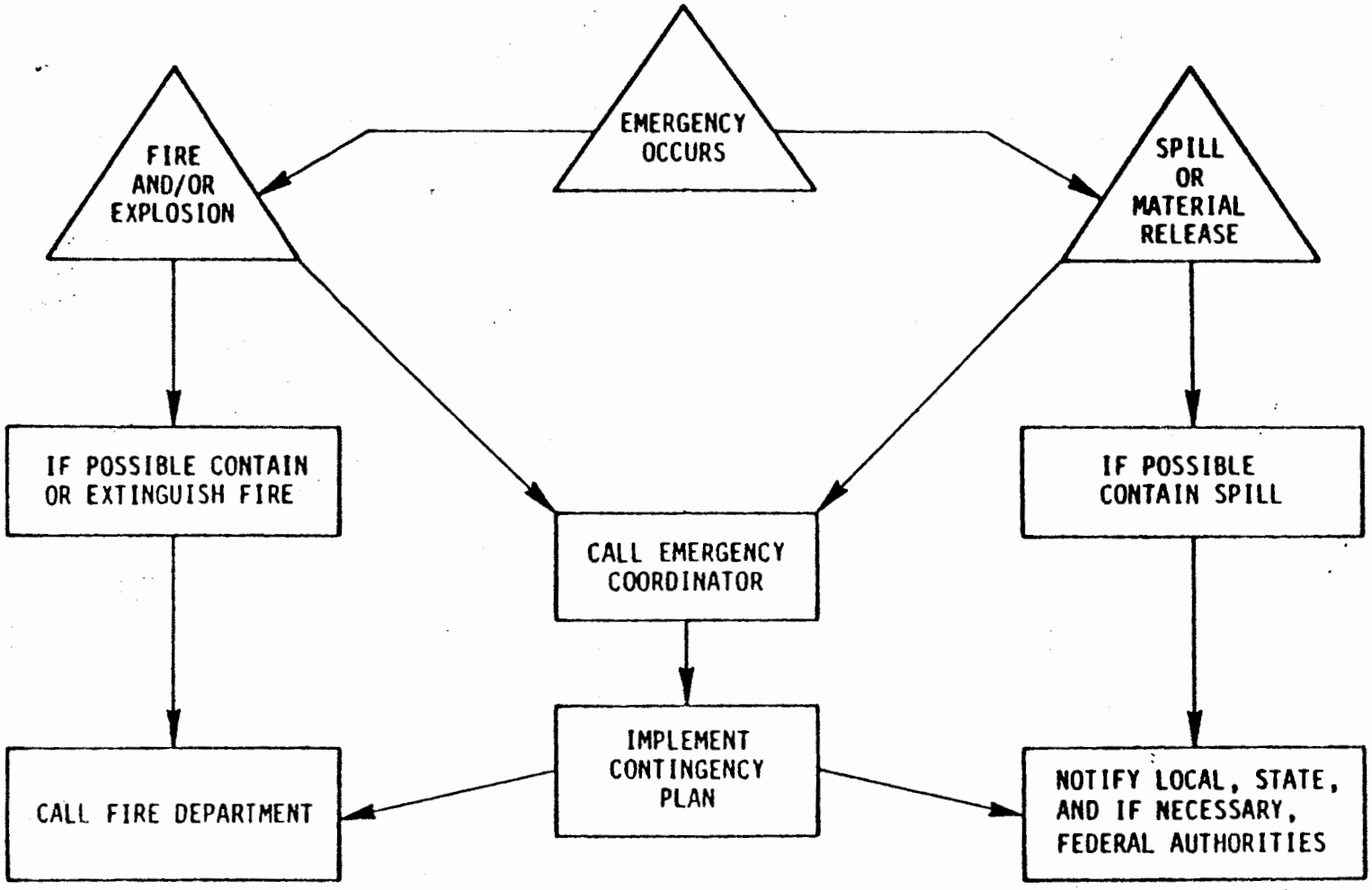


Figure 5: OVERVIEW OF EMERGENCY PLAN OF ACTION

affected by the fire or explosion:

1. Work in all areas will be shut down immediately.
2. All equipment will be shut down, as necessary and practical.
3. The Emergency Coordinator will be contacted.
4. The area will be cleared of any personnel not actively involved in fighting the fire. These persons are to report to the designated rally point.

The necessity for evacuation of areas surrounding the facility will be discussed with fire and police officials on the scene and will be initiated should the possibility of a major release of toxic fumes exist.

When the fire is extinguished and emergency personnel are no longer endangered, the emergency coordinator will inspect the effected area to determine additional action which might be necessary. (eg. Immenent threat of leak or rupture of containers in the area of the fire.)

Once the emergency coordinator determines that no additional threat to personnel or environment exists he will declaire the area clear and initiate the clean-up of any emergency equipment used. Once cleaned, this equipment will be inspected and made fit for use prior to resumption of plant operations.

Spills or Material Release.

In the event of a major emergency involving a chemical spill, the following general procedures will be used for rapid and safe response and control of the situation. If an employee discovers a chemical spill, he or she will immediately report it to the Emergency Coordinator. When contacted, the designated Emergency Coordinator will obtain information pertaining to the following:

1. The material spilled or released.
2. Location of the release or spillage of hazardous material.
3. An estimate of quantity released and/or the rate at which it is being released.
4. The direction in which the spilled material is heading.
5. Any injuries involved.
6. Fire and/or explosion or possibility of these events.

This information will help the Emergency Coordinator to assess the magnitude andpotential seriousness of the spill or release. If the accident is determined to lie within the company's emergency response capabilities, the Emergency Coordinator will contact and deploy the necessary inplant personnel. If the accident is beyond plant capabilities, the Emergency Coordinator will contact and deploy the appropriate agencies and emergency contractors. A list of agencies

and phone numbers can be found in Appendix E.

The initial response to any emergency will be to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment will be the secondary response.

In the event of a leak or spill in the proposed tank, all feed lines to the storage tank will be closed. The containment wall surrounding it has the capacity to hold the entire contents of the tank. Immediately after the spill is detected, any standing liquids will be removed with the vacuum unit or by absorbant pads.

It is extremly unlikely that a spill or leak would occur in the drum storage area, which would exceed the capacity of the containment. Should this possibility be immenent, the point of escape will be the position of the vacuum unit to catch escaping material before it escapes to the ground. In addition absorbant pads will be used to minimize contact with the ground.

G-4e PREVENTION OF RECURRENCE OR SPREAD OF FIRES, EXPLOSIONS OR RELEASES

Actions to prevent the recurrence or spread of fires, explosions or releases include stopping processes and operations, collecting and containing released waste, and recovering or isolating containers. In addition, if the facility stops operations in response to an

emergency, the emergency corrdinator will monitor valves, pipes and other equipment for leaks, pressure build-up and ruptures.

G-4f. STORAGE AND TREATMENTTMENT OF RELEASED MATERIAL

Immediately after an emergency, the emergency coordinator will make arrangements for treatment, storage, or disposal of recovered waste, contaminated soil, surface water, or any other contaminated material. These materials will be considered to be hazardous waste.

G-4g INCOMPATIBLE WASTES

The Emergency Coordinator will insure that wastes which may be incompatible with the released material are not treated, stored or disposed of until clean-up procedures are completed.

G-4h POST EMERGENCY EQUIPMENT MAINTENANCE

After an emergency event, all emergency equipment used will be cleaned so that it is fit for use or it will be replaced. Before operation are resumed an inspection of all safety equipment will be conducted. The Regional Administrator, state, and local authorities will be notified that post-emergency equipment maintenance has been performed and operations will be resumed.

G-4i CONTAINER SPILLS AND LEAKAGE

Refer to section G-4d and D-1a (2) for a discussion of emergency response procedures for container spills and leak age.

G-4j TANK SPILLS AND LEAKAGE

Refer to section G-4d and D-1a (4) for a discussion of tank spills and leakage emergency response procedures.

G-5 EMERGENCY EQUIPMENT

Emergency equipment, its use and location is listed in section F-2. Location is also shown in figure 1, page 11.

The phone system at Chemclene actually consists of two separate phone lines. Both lines are located throughout the facility. One line can be used to call the other. Should an emergency accure in the warehouse, the employee on duty could call the office trailer for assistance.

G-6 COORDINATION AGREEMENTS

Coordination of emergency services is covered in the PPC Plan, Appendix E.

G-7 EVACUATION PLAN

See Section G-4d.

G-8 REQUIRED REPORTS

As required by regulation, any emergency event which requires the implementation of the Contingency Plan will be reported to the EPA Region III Administrator within 15 days of the event. Forms for such reports are on file at the facility.

Chemclene Corporation

Employee Record

JOB TITLE: Facility Foreman

EMPLOYEE:

JOB DESCRIPTION:

I. Qualifications.
The holder of this position must have at least a high school education (4 years of college is preferable), be at least 21 years of age, hold a Class 3 Pennsylvania Driver's License with commensurate experience, be in good physical and mental health and show a keen interest in organization and management or other persons a jobs.

II. Duties.
The holder of this position shall be responsible for supervising, as well as working in, all plant and associated activities. These activities shall include transportation, receiving, shipping, waste sampling and operation of processing equipment.

TRAINING:

I. General.
The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A description of this training in contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars also held by the emergency coordinators for continuing training.

II. Records.
Introductory on-the-job training:

Type_____ Hours_____ Passed_____ Failed_____

Comments -

Signed_____ Date_____

Chemclene Corporation

Employee Record

JOB TITLE: Process Equipment Technician

EMPLOYEE:

JOB DESCRIPTION:

I. Qualifications.
The holder of this position must have at least a high school education, be at least 21 years of age and be in good physical and mental health.

II. Duties.
The holder of this position shall be responsible for the operation of processing equipment, waste sampling, shipping and receiving.

TRAINING:

I. General.
The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A description of this training is contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars will also be held by the emergency coordinator for continuing training.

II. Records.
Introductory on-the-job training:

Type_____ Hours_____ Passed_____ Failed_____

Comments -

Signed_____ Date_____

Chemclene Corporation

Employee Record

JOB TITLE: Driver

EMPLOYEE:

JOB DESCRIPTION:

I. Qualifications.
The holder of this position must have at least a high school education, be at least 21 years of age, hold a Class 3 Pennsylvania Driver's License with commensurate experience and be in good physical and mental health.

II. Duties.
The holder of this position shall be responsible for working in all plant and associated activities. These activities shall include transportation, receiving, shipping, waste sampling and operation of processing equipment.

TRAINING:

I. General.
The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A discription of this training is contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars will also be held by the emergency coordinators for continuing training.

II. Records.
Introductory on-the-job training:

Type_____ Hours_____ Passed_____ Failed_____

Comments -

Signed_____Date_____

Employee:_____ Page ___

Continuing training seminars:

Date	Present	Absent	Initials

H-1b TRAINING CONTENT, FREQUENCY AND TECHNIQUE

The taining program for all employees has been up-dated and revised to include both internally prepared presentations, demonstrations and materials acquired from outside sources. As operations change, regulations change; new equipment is acquired and documentation proceedures are revised, the program is updated. Materials used in this program are kept at the facility and are available to EPA officials for review.

During the training program, employees are instructed on the following:

1. Personal safety
2. Chemical characteristics and hazards
3. Emergency prevention and response
4. EPA and DOT regulations
5. Operational procedures

These topics have all been covered during initial training and have been updated periodically in additional sessions. At a minimum, each employee must be present at annual review programs. Since the inception of the training program, all employees have been present at sessions on the following dates: 1/29/82, 4/2/82, 7/2/82, 10/1/82, 4/1/83, 8/5/83, and 1/25/84.

Topic outlines include, but are not limited to the following:

1. Personal safety
   - use of protective equipment
   - proper lifting techniques
   - docontamination proceedures
2. Chemical characteristics and hazards
   - Meanings of corrosive, ignitable, toxic
   - Review of material safety data sheets
   - Potential hazards of and remedial action for skin or eye contact
   - Uses and misuses of materials handled
   - Potential incompatability
3. Emergency prevention and response
   - Familiarization with PPC plan
   - Instruction on operation of emergency equipment
   - Review of sections F & G of this application
   - Equipment shut-down proceedures
4. EPA & DOT regulations
   - definitions
   - vehicle regulations
   - reporting requirements
   - record keeping requirement
5. Operational proceedures
   - drum handling
   - sampling techniques

- record keeping proceedures
- housekeeping
- detection of potential discharge conditions

H-1c TRAINING DIRECTOR

Chemclene Corporation cannot justify the employment of a fulltime training director. Instead, the President and Vice-President jointly conduct the training sessions. Both are thoroughly familiar with regulatory requirements and operational proceedures each having spent over nine (9) years at Chemclene. In addition, both have attended numerous training seminars sponsored by the Hazordous Waste Services Association, DuPont Co., Diamond Shamrock Corp., and others. They are intimately familiar with this application, the State Part B application, the PPC plan, and the training program itself having written and/or developed them.

H-1d RELEVANCE OF TRAINING TO JOB POSITION

Each employee, in the normal course of work, comes in contact with hazardous materials and wastes and therefore all employees are involved in the training program.

H-1e TRAINING FOR EMERGENCY RESPONSE

Each employee receives the training for emergency prevention and response (See page 81 , item 3 .)

H-2 IMPLEMENTATION OF TRAINING PROGRAM

Records of each employees training are kept in their personnel file at the facility. See also H-1a & b.

No employee shall be permitted to work unsupervised in a position or at a task for which he/she has not been trained.

I. CLOSURE AND POST-CLOSURE REQUIREMENTS

I-1 CLOSURE PLAN

I-1a CLOSURE PERFORMANCE STANDARD

Upon initiation of closure, no additional waste materials would be received at this facility. At the end of the closure process no waste materials will remain. The closure process, then, will consist of removal and/or reclaimation and removal of all wastes and residues. This is possible because we are not an ultimate disposal facility, but rather a storage facility. With the removal of all wastes and residues, future accidental releases of hazardous waste will be impossible. There is, presently in effect, a ground water recovery program. This program is operational as a result of an historic ground water problem and it's operation is being handled outside this permit. This recovery system will continue to operate regardless of the facilitie's existance.

I-1b PARTIAL AND FINAL CLOSURE ACTIVITIES

Unlike a landfill or other disposal facility with defined capacity, this facility is anticipated to operate as long as there is a market for our services and as long as the permit is in effect. For purposes of the application, however, and since a closure date is required, we will state that the expected year of

closure will be twenty (20) years from the issu ance of the facility permit.

Partial closure would occur only if a tank used to store hazardous waste were taken out of service prior to the anticipated closure date. In other words, it is not anticipated that we would shut down a portion of our operating facility as would a landfill, closing a disposal cell.

In the event of a tank being taken out of service, the vessel would first have the contents removed. In that the tank (as yet not purchased or installed but planned) will be used to store only F001 or F002 material,we can assume that the contents will be partially recoverable. This would be the fate of the contents of the tank.

The emptied tank would then be rinsed with clean chloronated solvent to remove residue until such time as the rinsate is visually clear and free of particulates. The rinsate will be reclaimed to recover the solvent. Once rinsed, the tank will be dried and the interior san blasted if necessary to remove rust and scale which could potentially contain hazardous residues. (See also F-2).

The material remaining from this process will be disposed of as a hazardous waste in an approved manner at an approved facility.

Final closure activities fall into three (3) catagories including (1) removal of non-recoverable m aterial (2) reclaimation and removal of recoverable material (3) decontamination of facility.

(1) Removal of non recyclable material (ignitables) will be accomplished as it is now by transporting the materials as hazardous wastes to an approved disposal facility.

(2) Removal of recyclable material (F001 and F002) will be accomplished by distillation to recover the solvent portion of the waste. Residues remaining from this process will be disposed of, as they are now, at an approved hazardous waste disposal facility.

(3) Decontamination of the facility involves removing only residues which may remain after the waste and still bottoms are removed. The tank would be decontaminated as described under partial closure and G-2b (2)(g) and I-1b. Miscellaneous equipment (eg. handtrucks, towmotor, tools, etc.) would be decontaminated by degreasing (cleaning with solvent) and/or sand blasting. Portions of the storage area which may have residue remaining would be sand blasted and the residue disposed of as a hazardous waste at an approved facility.

I-1c MAXIMUM WASTE INVENTORY

Non-Recyclable wastes (on-site generated -------- 100 Drums Still Bottoms)

Ignitable wastes---------- 72 drums

Recyclable wastes---------- 644 drums

Recyclable wastes---------- 6,000 gallons in tank

I-1d(1) INVENTORY REMOVAL, DISPOSAL AND DECONTAMINATION OF EQUIPMENT.

Containers which are emptied in the closure process will be sent to a drum reconditioner (see also I-1b).

I-1d(2) CLOSURE OF TANKS

Tank vents, pipes, alarm system and anyother equipment not specifically listed which will be deconataminated either by degreasing, solvent cleaning, sandblasting or disposal as a hazardous waste.

Tank cleaning proceedure is described in F-2b (2)(g) and I-1b.

I-1e SCHEDULE FOR CLOSURE: 270.14(B), 264.12 (a)(4)

CLOSURE WILL CONSIST OF THREE PARTS:

1. Removal of Non-recoverable wastes (ignitables and on site generated still bottoms in storage).
2. Reclaimation and removal of recoverable waste.
3. Decontamination of the facility.

However, each part is not consecutive in time. Reclaimation and removal of recoverable waste will take the longest to complete and will begin the same day the last hazardous waste is received by this facility. Based on the calculations used in I-4 this part of closure will take 75 days. The removal of the still bottoms produced will be done concurrently with this part. The removal

TABLE 3. ESTIMATED CLOSURE SCHEDULE

ACTIVITY	DAYS
	10 20 30 40 50 60 70 80 90 100 110 120
1. Receipt of final volume of hazardous waste.	
2. Removal and disposal of non-reclaimable hazardous waste.	
3. Reclaimation and removal of reclaimable hazardous waste.	
4. Tank decontamination.	
5. Decontamination of misc. equipment and containment areas.	
6. Submittal of Certification of Closure to the U.S.E.P.A. Regional Administrator.	

of non-recoverable wastes will take 2 weeks (see I-4) and will be performed in the week following the last day. Waste is received (concurrently with reclaimation). Reclaimation of the material in the waste tank will be reclaimed first. When this tank is emptied, but while reclaimation of drummed waste is taking place, the tank will be decontaminated. It is estimated this portion of decontamination will take 10 days. Therefore, it is anticipated that 75 days after the last waste is received all waste will be removed and only recontamination of the containment areas and miscellanious equipment will remain; it is estimated that this portion of decontamination will require 30 days. Therefore, it is estimated closure will be complete 105 days after the last hazardous waste is received . This schedule of closure is summarized in table 3.

Chemclene will notify the Regional Administrator 180 days prior to the anticipated beginning of final closure; final closure is defined as beginning 75 days after the las hazardous waste is received.

I-4 CLOSURE COST ESTIMATE

Treating and Disposing of Inventory

1. From the section on Containment (D-1a(3)(c)) it has been determined that the maximum amount of waste that could be stored at this facility is as follows:

a. Recyclable waste (F001 & 2) 41,420 gallons
(644 drums + 6,000 gal's bulk)

b. Onsite generated still bottoms (F002) - 5,500 Gal's
(100 drums)

c. Ignitable Wastes - 3,960 gal's
(72 drums)

This is a maximum, worst case, inventory level for the purpose of establishing a maximum closure cost. Actual operating practise is to carry waste inventory at a much lower level.

The following pages detail closure methods and costs.

2. The methods of treatment and removal vary according to the waste and are indicated below:

a. Recyclable waste (F001) - These wastes will be distilled to remove the volatile portion and will leave a still bottom; the recovered solvent has a market value and will be sold; the still bottoms will be disposed of by either incineration or solidification and landfilling.

b. Onsite generated still bottoms will be either incinerated or solidified and landfilled.

c. Ignitable wastes will be transported to an approved facility for disposal.

Disposal of Recyclable Waste.

3. It is assumed that the average composition of this type of waste is 50% volatile, chlorinated solvents and 50% petroleum oils (the primary constituent of still bottoms).

4. Using this percentage, recycling or distillation will produce 20,710 gallons of recycled solvent and 20,710 gallons of still bottoms.

5. Unit cost to recycle solvent -- Distillation rate: It is assumed that the current distillation equipment operated at Chemclene can process 550 gallons of recyclable waste per 8 hour day (or 68.75 gallons per hour).

6. Unit cost to recycle solvent -- cost of operation of distillation equipment; taking into account labor, utilities, cost of steam and overhead it is assumed the cost of running the distillation equipment is $40.00 per hour.

7. Total cost to recycle solvent (line 1a ÷ line 5) X line 6 : Using the above assumptions the total cost to treat (recycle) the recyclable waste will be $24,092.00.

8. Unit cost for the disposal of the still bottoms: It is assumed that the cost of disposal (based on current experience) is $30.00 per drum or $0.55 per gallon.

9. Total cost of disposal of still bottoms (line 8 X line 4): Using these assumptions, the cost of disposal will be $11,391.

10. Cost of transporting still bottoms to an approved hazardous waste facility: The nearest such facility is 20 miles away. A truck with an 80 drum capacity can be rented for

$60.00 per hour. The average speed is 40 M.P.H. For one round trip the cost of hauling is $60.00.

11. Number of hauls required: For 20,710 gallons or 377 drums of still bottoms to be Hauled, 5 trips would be required.

12. Total cost of hauling still bottoms (line 12 X line 13): Given these assumptions, the total hauling cost would be $300.00.

13. Grand total cost for treating (recycling) the recyclable waste (line 7 + line 9 + line 12) Baised on the assumptions given above, the total cost to treat the recyclable waste will be $35,783.

Disposal of onsite generated still bottoms (in storage).

14. Number of hauls required (line 1b ÷ line 12): Assuming 100 drums of still bottoms to be disposed of, the number of hauls required would be 2.

15. Total cost to dispose of still bottoms ((line 1b X line 10) + (line 16 X line 12)): Using the above assumptions, the total cost to remove and dispose of onsite generated still bottoms will be $3,120.

Disposal of Ignitable Waste (in storage).

16. Unit cost of disposal: From current excpeience, it is assumed that this waste can be disposed of by burning through the same approved hazardous waste facility used for

the disposal of the still bottoms for a cost of $25.00 per drum.

17. Number of hauls required (line 1c ÷ line 10): The number of hauls required will be one.

18. Total cost to dispose of ignitable waste (line 1c x line 16) + (line 17 x line 10): The total cost for hauling and disposal would be $1,860.00.

DECONTAMINATION OF THE FACILITY

Tank Cleaning

1. The inside of the tank will first be rinsed with clean chlorinated solvent until the rinsate is relatively clean, then air dried to remove all volatile compounds and finally, if necessary (due to tightly bound residue still remaining), sandblasted.

2. Material cost for rinsing the tank: The inside of the tank will be spray-washed with chlorinated solvent; it is estimated this will require a maximum of 6 drums or 330 gallons of solvent costing $4.50 per gallon or $1,485.00

3. Labor to rinse and dry tank: It is assumed it will take one man four (4) hours to rinse the tank and start and stop the drying proceedure at a cost of $20.00 per hour for a total cost of $80.00.

4. Cost of sandblasting: A 100 cfm compressor rents for $35.00/day. Chemclene owns its own sandblaster which costs $25.00 per hour to operate (cost of sand). Labor costs are estimated at $20.00 per hour. It will take three (3) hours to sandblast the interior of the tank. Consequently it will cost $135.00 to sandblast the tank.

5. Type and quantity of residues generated: These will consist of contaminated sand that is estimated to be 1,000 pounds and contaminated solvent.

6. Cost of disposal of residues generated: The sand will be disposedat an approved hazardous waste facility for $50.00 per ton while the waste chlorinated solvent will be disposed of through an approved hazardous waste facility for $10.00 per drum of $60.00. Therefore, the cost of disposal will be $110.00

7. The total cost of decontaminating the tank (line 2 + line 3 + line 4 +line 6) is estimated to be $1,810.00.

Containment structures (concrete dykes & floors).

8. All the floors and dykes of the storage areas will be sandblasted and the contaminated sand landfilled at an approved hazardous waste facility if it is hazardous.

9. Area of concrete to be cleaned: Based on the description of the conatinment areas in another section of this application, the total surface area to be cleaned consists of storage areas #1 and #2. The total square feet in this area is $4,012.25'^2$.

10. Unit Cost of Sandblasting: A 100 cfm air compressor can be rented for $35.00 per day. Chemclene owns a sandblasting unit which costs $25.00 per hr to operate. This unit can clean $40'^2$ per hr. Labor is estimated at $20.00 per hour.

Thus sandblasting costs are estimated at $1.23/foot^2.

11. Total cost of sandblasting (line 10 X line 9): Sandblasting costs for the containment areas are estimated at $4,935.00.

12. Type and quantity of residue generated: The residue generated will consist of contaminated sand. It is assumed that 25 tons of contaminated sand will be generated.

13. Total cost of decontamination of containment areas (line 11 + (line 12 X line 6)): The total cost for this portion of closure is estimated to be $6,185.00.

Miscellaneous Activities.

14. Flush pumps and hoses: All pumps and hoses used to transfer hazardous waste will be flushed and air dried. It is estimated this will cost $500.00.

15. Decontamination equipment: All materials handling equipment used onsite will be decontiminated. This is estimated to cost $400.00.

16. Total costs for decontaminating facility (sum of lines 15, 14, 13, and 7): The total costs of decontaminating the facility, based on the above assumptions, are estimated to be $7,085.00

Professional Certification.

1. It is assumed that 10 hours will be required for

inspection of all aspects of closure.

2. It is assumed that a professional engineer can be hired for $75.00 per hour.

3. The number of clerical and technical hours required for administrative duties: It is assumed that 12 hours will be required. These services will be provided by the independant consulting firm for whom the professional engineer works.

4. Costs for technical and clerical administration: It is estimated that this cost will be $25.00/hr.

5. Total administrative costs (line 3 X line 4): It is estimated this cost will be $300.00.

6. Total certification costs ((line 1 X line 2) + line 5): Total professional certification costs are estimated to be $1,050.00.

Total Cost of Closure.

1. Cost of disposal of inventory (sum of lines 13 15 and 18 of that section): It is estimated this cost will be $40,763.00.

2. Cost of decontamination of facility (sum of lines 7 and 16 of that section): It is estimated this cost will be $8,895.00.

3. Cost of professional certification (line 6 of that section): It is estimated this cost will be $1,050.00.

4. Subtotal of line 1,2, & 3 = $50,708.00.

5. Contigencies: A general provision of 15% of line 4 is included.

6. Administrative and supervisory costs: A general provision for insurance, taxes, and supervisory costs of 15% of line 4 is included.

7. Total cost of closure (sum of lines 1,2,3,4,5, and 6): The total costs for closing this facility is estimated at $65,920.00.

I-5 FININCIAL ASSURANCE MECHANISM FOR CLOSURE

For the purposes of this Federal application, a closure trust fund is being selected. However, Chemclene cannot proceed much further than this selection due to regulatory uncertain ties.

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. AMERICAN HOME ASSURANCE COMPANY, (the "Insurer"),
(Name of Insurer)

of 70 PINE ST., NEW YORK, N.Y. 10270 hereby
(Address of Insurer)

certifies that it has issued liability insurance covering bodily injury and property damage to CHEMCLENE CORPORATION, (the
(Name of Insured)

"insured"), of 250 N PHOENIXVILLE PK, MALVERN, PA 19355
(Address of Insured)

in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at: A. SAME: EPA ID #PAD014353445

B. _____

C. _____
(EPA Identification #, name, and address of facility)

for sudden accidental occurrences. The limits of liability are primary and the company shall not be liable for amounts in excess of $ _____ for each occurrence and annual aggregate limits of $ _____, exclusive of legal defense costs. The coverage is provided under policy number _____, issued on _____.
(Date)

The limits of liability are excess and the company shall not be liable for amounts in excess of $ 1,000,000 ea occ$ 1,000,000 agg. exclusive of defense costs. The coverage is provided under policy number CE3649282 issued on 7-15-83.
(Date)

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the Insurer or the insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of the thirty(30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

Gail E Sensenderfer
(Signature of Authorized Representative of Insurer)

GAIL E. SENSENDERFER ENVIRONMENTAL COMPLIANCE SERVICES
(Type Name of Representative)

UNDERWRITER Authorized Representative of NATIONAL UNION FIRE
(Title) (Name of Insurer)

INSURANCE CO OF PITTSBURGH ; 70 PINE ST., NEW YORK, N.Y. 10270
(Address of Insurer)

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: 30 APRIL 84 Signature: W. Lloyd Balderston

W. Lloyd Balderston
President

Revised per E.P.A. comments received July 5, 1984

Date: 10 Aug 84 Signature: W. Lloyd Balderston

W. Lloyd Balderston

APPENDIX A

FLOODPLAIN MAP

FHBM

FLOOD HAZARD BOUNDARY MAP

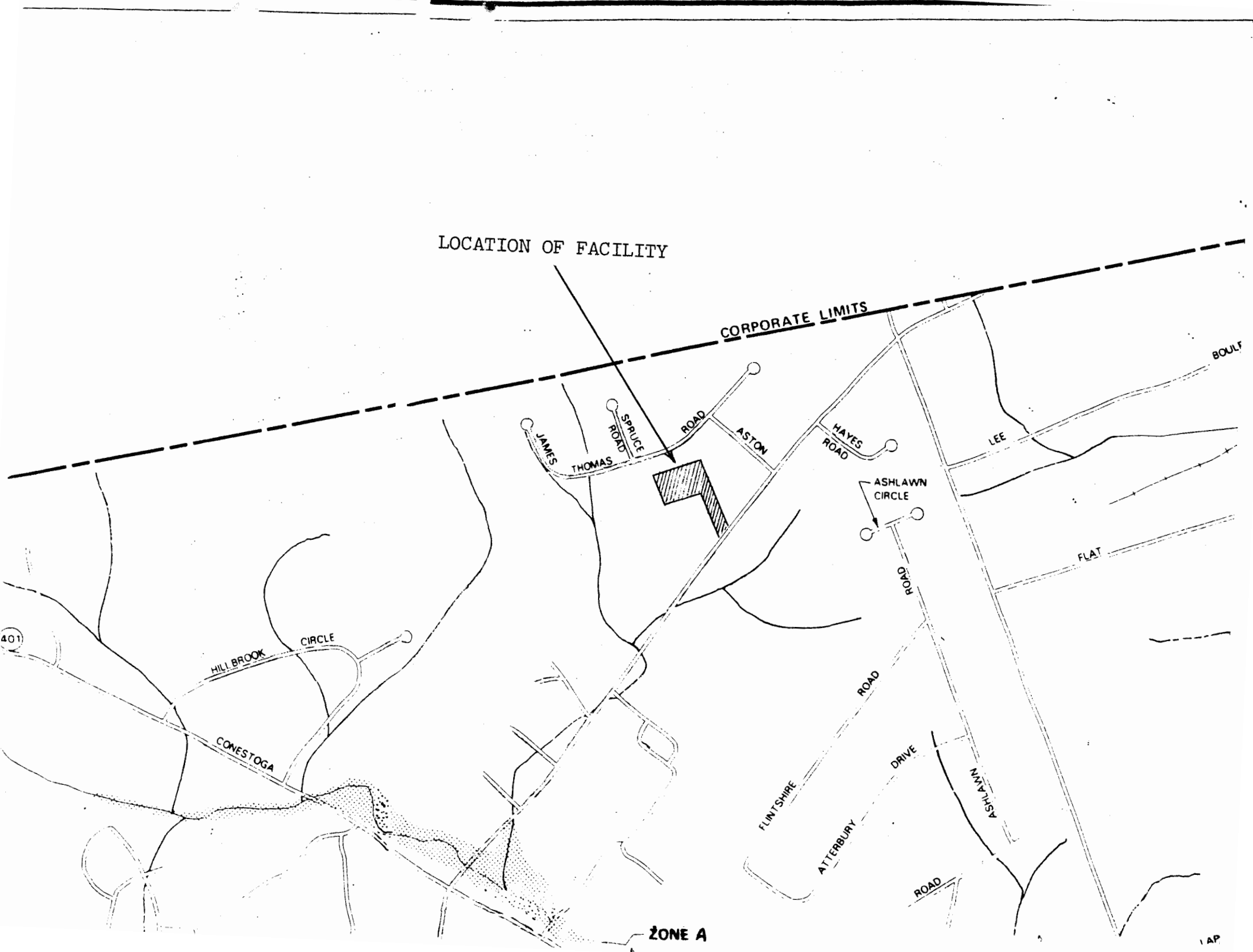
TOWNSHIP OF
EAST WHITELAND, PENNSYLVANIA
CHESTER COUNTY

ONLY PANEL PRINTED

COMMUNITY-PANEL NUMBER
420279 0005 A

EFFECTIVE DATE:
APRIL 8, 1983

Federal Emergency Management Agency


LOCATION OF FACILITY
CORPORATE LIMITS
JAMES
THOMAS
SPRUCE ROAD
ROAD
ASTON
HAYES ROAD
ASHLAWN CIRCLE
LEE
FLAT
ROAD
401
HILLBROOK
CIRCLE
CONESTOGA
FLINTSHIRE
ROAD
DRIVE
ATTERBURY
ROAD
ASHLAWN
ZONE A